

REMARKS

Applicant hereby responds to the Final Action of November 29, 2006, in the above-referenced patent application. Claims 9-23 are pending in the patent application.

Claims 19-23 were objected to, but were deemed allowable if rewritten in independent form including limitations of base claims and any intervening claims. Applicant wishes to thank the Examiner for detailing the allowable claims. Claims 19-23 have been rewritten in independent form, including limitations of base claims and any intervening claims, and as such should be allowed.

Claims 9-18 were rejected under 35 USC 103(a) as being unpatenable over Suzuki, T. et al. ("Suzuki"), Teleoperation of multiple robots through the Internet, 5th IEEE International Workshop on Robot and Human Communications, November 11/14/1996, pages 84-89, in view of Yokota et al. ("Yokota"), A human interface system for the multi-agent robotic system, IEEE, 5/13/1994, pages 1039-1044, volume 2, and further in view of view of Home Control Software, Home Vision by Custom Solutions, Inc. (hereinafter "HomeVision"), October 1996, pages 1-3. Claims 9, 10, 15, 16 and 17 have been amended to further clarify the claimed limitations.

Claim rejections under 35 USC 103(a)

Rejection of claims 9-18 under 35 USC 103(a) is respectfully traversed because for at least the following reasons, the references, alone or in combination, do not disclose all of the claimed limitations as amended.

Suzuki does not disclose executing a software agent

As per **claim 9**, it is respectfully submitted that Suzuki does not disclose: “executing a software agent on the client device, wherein executing the software agent causes a user interface to be displayed on the client device, which displays a top list of one or more devices that are connected to the network for individually selecting each of said devices to cooperate with one or more other devices to provide the service,” as claimed. Nor is there any suggestion in Suzuki (and the Examiner has not provided any other reference), which teaches such limitations.

The Examiner relies on a GUI in Suzuki (Fig. 4). However, that GUI does not teach executing a software agent causes a user interface to be displayed on the client device, which displays a top list of devices that are connected to the network for individually selecting each of said devices, as claimed. There is no list of robots on the GUI in Fig. 4 of Suzuki, for selection to cooperate with one or more other devices to provide the service. Even according to the Examiner’s interpretation (which Applicant traverses), at best Fig. 4 of Suzuki shows robots *status* panel, not a GUI for selecting a devices to cooperate to provide a service.

Suzuki does not disclose operator selection of robots for tasks

It is respectfully submitted that Suzuki does not disclose: “selecting a first home device from the user interface for performing the service in cooperation with a second device; selecting a second home device from the user interface for performing the service in cooperation with the first device,” as claimed.

In Suzuki the operator commands a task and the *system* determines the robots to perform the task, rather than the operator selecting two individual robots to cooperate for perform a task. Specifically, in Suzuki the operator commands a task (e.g., viewing an object) to an Operation Module (page 85, right column) without specifying which robot performs the task. Then, the Operation Module itself determines the robots to perform the task, and commands those robot(s) to perform the task.

Suzuki describes the operation of system modules in Section 5.1 on pages 86 and 87 in conjunction with Fig. 3, to select robots to perform the commended task. The operator does not select a first robot and a second robot to cooperate to perform a task as claimed. The operator specifies a task (e.g., “observing an object”), and does not control a specific robot from a control computer. Rather, the Operation Module negotiates with the robots and selects/controls the robots that can perform the task. Suzuki does not allow an operator to select two individual robots for a task as that would interfere with Suzuki’s system of simultaneous multi-robot operation.

Suzuki teaches away from operator selection of robots for tasks

It is respectfully submitted that Suzuki teaches away from operator selection of a first device and a second device from a GUI to cooperate in providing a service. Suzuki’s explicit details of a command log from the WWW server in Figure 6(a) of Suzuki, shows that in performing a task, the Operation Module, not the operator at a control computer, selects robots. Suzuki explicitly states:

“When the operator requires observation task, the Operation Module broadcasts a task request message to the robot ID ‘**Cm****’. Since all of the robots know their own ID, the robots carrying cameras reply to the Operation Module”
(Suzuki, page 87, section 5.2).

As such, Suzuki teaches away from operator selection of robots for cooperation to perform a task.

The Examiner relies on the Control Panel for Individual Robot in Fig. 4 of Suzuki. However, the robots with cameras are selected by the Operation Module, not an operator. The operator specifies an object to be observed, and then the Operation Module selects among the robots with cameras (i.e., “**Cm****”) to perform that observation task.

Suzuki explains:

“Assuming inspection tasks of a plant, we execute an observation task with giving commands to the robots by clicking an object on the environment map shown in Fig. 4.... Figure 6 shows a part of communication logs between the WWW server and the robots. The WWW server required observation tasks to the robots’ ID ‘**CM****’. The robot 1 and robot 2 which had cameras replied to the WWW server.” (Suzuki, page 88, section 5.3, second paragraph, emphasis added).

This clearly shows that GUI in Fig. 4 of Suzuki is not for selecting two robots to cooperate to perform a task, rather the Control Module selects the robots for an observation task.

It is respectfully submitted that Suzuki does not disclose sending control and command data from the client device to the first and second home devices to cause the first and second home device to communicate with each other to perform the service, as claimed. The Examiner states that Yokota discloses such limitations. Applicant respectfully disagrees.

Suzuki and Yokota are non-analogous art

Applicant respectfully maintains that Suzuki's human interface system for teleoperating multiple robots connected to a LAN, has nothing to do with a method for implementing command and control for home devices via a home network, as claimed. A room in a plant with robots in it where robots with cameras provide images, has nothing to do with the general understanding of a home network with home devices connected thereto, in the art. It is respectfully submitted that the Examiner's characterization of Suzuki's robots and a controlling computer has home devices is squarely outside the definition of a home network and home devices in the specification. There is no mention of a home, a room in a home, a LAN in a home, robots in a home or robots in a room in a home. Teachings of Suzuki cannot be applied to a home network for the reasons given above. Yokota is non-analogous art for at least reasons similar to that provide above in relation to Suzuki.

Yokota does not disclose sending control and command from a client device to selected first and second devices to cooperate

It is respectfully submitted that Yokota does not disclose: "sending control and command data from the client device through the network to cause the first and second home devices to communicate with each other to perform the service," as claimed.

On page 1039, at bottom right, Fig. 1, and item 6 on page 1041 (relied on by the Examiner), Yokota mentions an operator assigns a mission to the system (item 5), and by default robots act independently and as need arises, a robot may cooperate with another. Therefore, as in Suzuki, in Yokota the operator assigns a task to the system which selects the robots to accomplish that task, and the robots are not required to cooperate.

In Yokota, if the robots decide to cooperate (item 6), it does not require operator command and control from a GUI. By contrast, as claimed herein, both the first and second home devices are selected from a user interface, and the selected devices are commanded to communicate and cooperate to accomplish a service. Therefore, Yokota, alone or in combination with Suzuki, does not teach or fairly suggest sending control and command data from the client device through the network to cause the first and second home devices to communicate with each other to perform the service, as required by claim 9.

HomeVision does not teach a top list of one or more devices

It is respectfully submitted that HomeVision does not teach a software agent on the client device, wherein executing the software agent causes a user interface to be displayed on the client device, which displays a top list of one or more devices that are connected to the network

for individually selecting each of said devices to cooperate with one or more other devices to provide the service, as claimed.

In HomeVision the user must first define devices in the software using various screens, as well as such things as variables, timers and flags (page 1, Sample Device Set-Up Screen). Then the user sets up Scheduled Events, Periodic Events, Macros, etc., using setup screens. Thereafter, using code writing screens, the user programs "Actions" to take place when an event is activated. There is no suggestion in HomeVision of the claimed limitations of a top list of one or more devices that are connected to the network for individually selecting each of said devices to cooperate with one or more other devices to provide the service.

Despite the Examiner's interpretation, it is respectfully submitted that in HomeVision the user must first define devices in the software using various screens, and there is no creating of list of devices detected as currently connected to the network. Further, in HomeVision, the user may define a device that is not connected to the network, or the user may decide to not define a device that is connected to the network. As such, HomeVision has nothing to do with creating a top menu that lists detected devices.

Indeed, the list or menu of devices in HomeVision is not displayed on a display device for a user to individually select devices to cooperate to perform a service. By contrast, the user sets up Scheduled Events, Periodic Events, Macros, using setup screens, and then using code writing screens, the user programs "Actions" to take place when an event is activated. As such,

HomeVision does not create a top list as claimed, and the user does not select devices from a list or menu of devices, as claimed (Sample Event "Action" Screen, page 3).

It is well settled that in order for a modification or combination of the prior art to be valid, the prior art itself must suggest the modification or combination, "...invention cannot be found obvious unless there was some explicit teaching or suggestion in the art to motivate one of ordinary skill to combine elements so as to create the same invention." *Winner International Royalty Corp. v. Wang*, No. 96-2107, 48 USPQ.2d 1139, 1140 (D.C.D.C. 1998) (emphasis added). "The prior art must provide one of ordinary skill in the art the motivation to make the proposed molecular modifications needed to arrive at the claimed compound." *In re Jones*, 958 F.2d 347, 21 USPQ.2d 1941, 1944 (Fed. Cir. 1992) (emphasis added). Neither of the references suggests the motivation to modify or combine the references as proposed. The references are individually complete and functionally independent for their limited specific purposes and there would be no reason to make the modification proposed by the Examiner. Therefore, because neither of the prior art references suggests the combination and modifications proposed by the Examiner for the combination and modifications are improper.

As discussed, there is no creation of a list of devices in the cited references for selection of devices connected to a home network to cooperate to perform a task. Nor is there any teaching in the cited references of displaying said list on a client device for a user to individually select each listed device to cooperate in performing a task. On the one hand the Examiner states that Suzuki detects robots (which the Applicant disagrees with), and on the other hand the Examiner attempts to modify Suzuki with HomeVision for the user to first define devices.

However, if according to the Examiner Suzuki detects robots, then modifying Suzuki according to HomeVision to define (rather than detect) devices, teaches away from the present invention. For at least these reasons, rejection of claim 9 and all claims dependent therefrom should be withdrawn. Further, Applicant respectfully submits that the Examiner is improperly using “hindsight” and the teachings of Applicant’s own claimed invention in order to combine references to render Applicants’ claims obvious. For at least these reasons, rejection of claim 9, and all claims dependent therefrom should be withdrawn.

As per **claim 10**, Suzuki does not disclose a session manager program for acting on behalf of the user and for assisting the user to cause the first and second home devices to communicate with each other to perform the service, which displays a top list of devices that are connected to the network for individually selecting each of said devices, as claimed.

As per **claim 11**, Suzuki (Fig. 4) only shows one robot control panel, however Suzuki does not disclose: “wherein the client device includes a generator that generating a human graphical user interface (GUI), and the step of executing the session manager on the client device includes the step of generating and displaying on the client device a graphics user interface object page containing device buttons associated with the first home device and the second home device,” as claimed.

As per **claim 12**, Suzuki’s mention of browser in WWW does not teach: “wherein the client device includes a browser for generating a human graphical user interface (GUI),” as required by claim 12. Nor does mention of HTML disclose: “wherein the graphics user

interface is coded in HTML, wherein the HTML coded graphics user interface object includes a page containing device buttons associated with the first home device and the second home device,” as required by claim 13.

As per **claim 14**, the concepts of source and sink devices are non-existent in Suzuki and Yokota. It is respectfully that Examiner’s interpretation of source and sink devices in Suzuki and Yokota are outside the scope of the references. Handling objects by robots does not disclose information sink and sources as claimed.

As per **claim 15**, the references do not disclose selecting the first home device includes the step of reading a first home device capabilities file, wherein the first home device capabilities file identifies the capabilities of the first home device, selecting the second home device includes the step of comparing the content of the capabilities file of the first home device with that of one or more devices to find a second device capable of cooperating with the first home device to perform the service, as claimed. There are no steps of reading and matching contents of capabilities files in the references.

As per **claim 16**, the references do not disclose selecting the first home device includes determining the capabilities of the first home device, and selecting the second home device further includes matching capabilities of the first home device with that of one or more other devices to determine a second device capable of cooperating with the first home device to perform the service, as claimed.

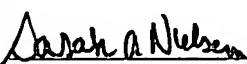
As per **claim 17**, it is respectfully submitted that a Web browser is a user interface for an operator to communicate with the Operation Module. The Web browser does not provide control application that handles communication between a home device and a session manager.

Further, Suzuki does not disclose utilizing control applications for communicating between the two selected devices. And, Suzuki does not disclose a session manager coordinating the communication between the selected devices to establish configurations therebetween to perform a requested service. For at least these reasons, and other reasons, Applicant believes that the claim 17 should be allowed.

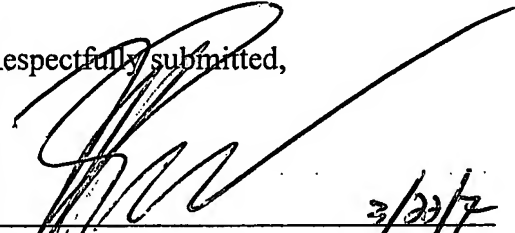
As per **claim 18**, as discussed above, it is respectfully submitted that Suzuki (Sec. 5.3, Figs. 6, 7, 10) does not teach operator selection and configuration of two robots to cooperate to perform a service. Suzuki does not disclose that upon selection of the two home devices to perform a particular service, then selecting certain device options for each of the selected home devices to perform that particular service, as claimed.

CONCLUSION

If the Examiner believes that telephone interview will help further the prosecution of this case, Applicant respectfully requests that the undersigned attorney be contacted at the listed telephone number.

<p align="center"><u>Certificate of Mailing</u></p> <p>I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on March <u>22</u>, 2007.</p> <p>By: Sarah A. Nielsen</p> <p> Signature</p>

Respectfully submitted,


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